



Memorandum

Environmental Health and Safety

TO: Jay Taylor, Equipment Management, Fleet Analyst

FROM: Raymond Hagen, Hazmat/Safety Specialist
David Tavares, Hazmat Supervisor

CC: Robert Stoudt, Equipment Management, Fleet Director
Laura Guerrero, Risk Manager
Scott Mosley, Hearing Conservation Program, Administrator

DATE: **July 19, 2006**

SUBJECT: HEARING CONSERVATION – EMPLOYEE NOTIFICATION

This memo and attached documentation is to notify you that noise monitoring was performed in accordance with 29 CFR 1910.95(e) and the OSHA Technician Manual (OTM) Section III, Chapter 5, evaluation of noise exposures. Initial noise monitoring was performed on March 9, 2004. A noise walk around survey of the area and monitoring of new equipment was performed on July 19, 2006.

Attached is the Noise Monitoring Survey results and employee notification letter. **All** these documents must be posted for ten **(10)** working days in a prominent area, where **all** employees who work with equipment identified in the survey at all Equipment Management Facilities. Based on the initial monitoring results completed in 2004 and subsequent re-monitoring of equipment, your employees will not be included the City of Tempe, Hearing Conservation Program. However, there are specific requirements that employees must follow to ensure that the highest level of hearing protection is maintained. These requirements are included with the attached Noise Monitoring Report.

If you have any questions about the monitoring, hearing protective devices, placement of sign(s), or wish to have additional monitoring performed, please contact Program Administrator, Scott Mosley at 350-8877.

POST FOR TEN WORKING DAYS

HEARING CONSERVATION NOTIFICATION

This letter serves to notify you that noise monitoring was performed to measure the duration and intensity of occupational noise in your work environment (See Attached Noise Monitoring Survey). The results were compared to allowable exposure standards called PELs (Permissible Exposure Limits) established by OSHA. This PEL is calculated on a Time Weighted Average (TWA) over a normal 8-hour work shift. The results indicated that you **do not** exceed the PEL/TWA. Therefore, you are **not** covered by the City of Tempe, Hearing Conservation Program.

However, the occupational noise level measured does require that you wear hearing protection devices (HPD) as a form of Personal Protective Equipment (PPE). The use of HPD's provides an additional protective barrier between you and potentially high noise levels.

If you have any questions about monitoring, other requirements identified or wish to have additional monitoring performed, please contact 350-8877 or 350-2818.

POST FOR TEN WORKING DAYS

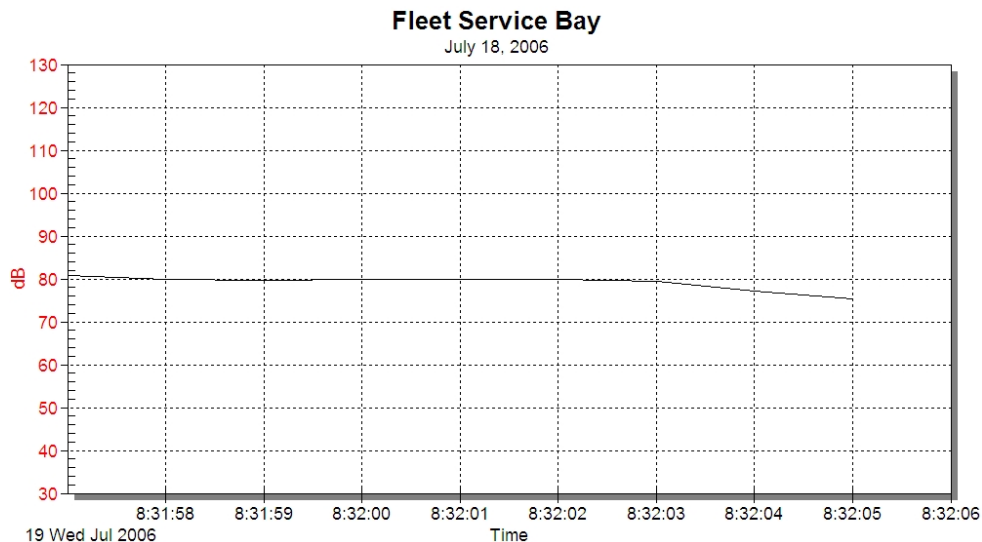
Monitoring Synopsis

The sound meter used to perform monitoring was a Type 2 meter with data logging abilities and a frequency range of 31.5Hz ~ 8KHz. The measuring level range is 30 ~ 130dB in the "A" frequency rating. Accuracy is approximately +/- 1.5 dB. The meter was calibrated per manufactures recommendations using a standard Acoustic Calibrator (94 dB) at the start and end of monitoring and was found to be within the acceptable ranges.

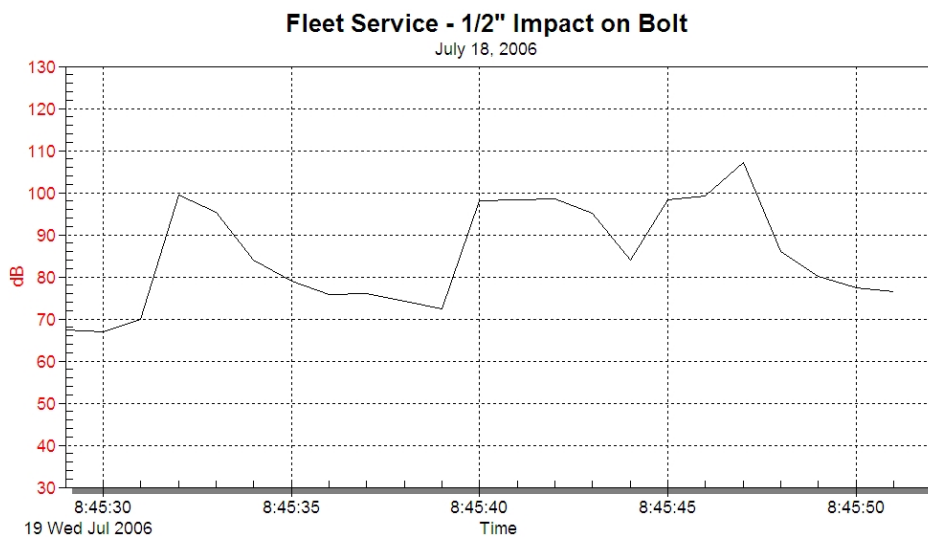
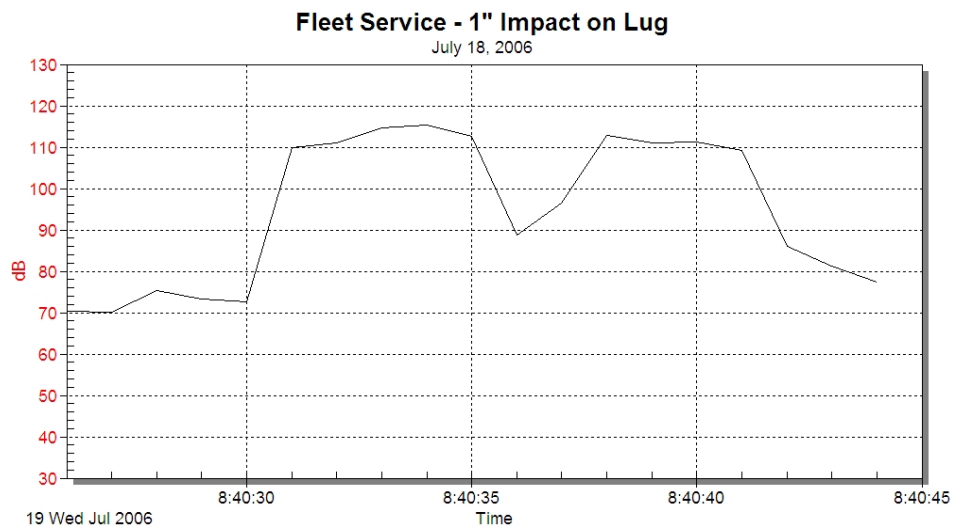
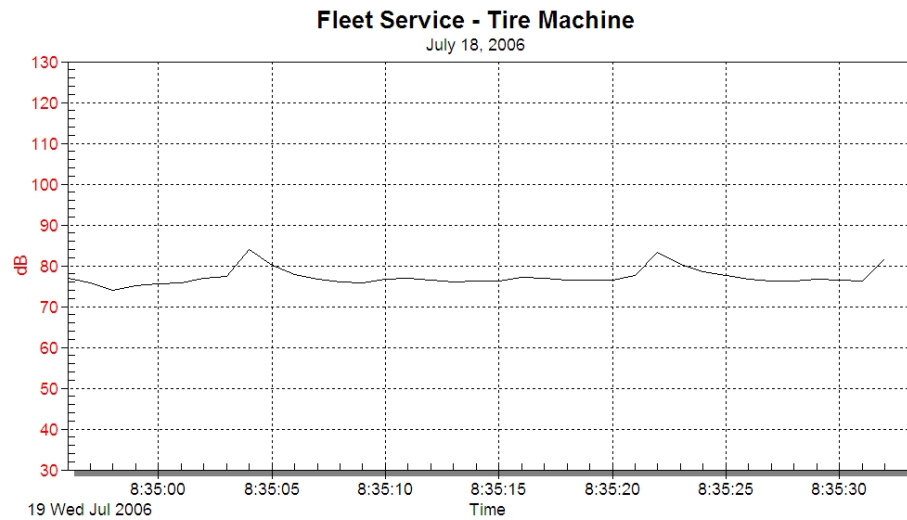
There are six noise monitoring graphs that are attached of equipment that was identified in the 2004 survey and re-monitored during this walk around survey. When screening for noise exposures, sound level meter measurements and estimates of the duration of exposure are sufficient. The resulting spot readings can be used to determine the need for a more complete evaluation. Based on this monitoring event, no additional monitoring is required to establish the need for employees to remain in the Hearing Conservation Program.

The monitoring event includes equipment that is used throughout the City of Tempe by Equipment Management personnel. While each individual piece of equipment was not monitored, a representative sample of each type/style of equipment was monitored.

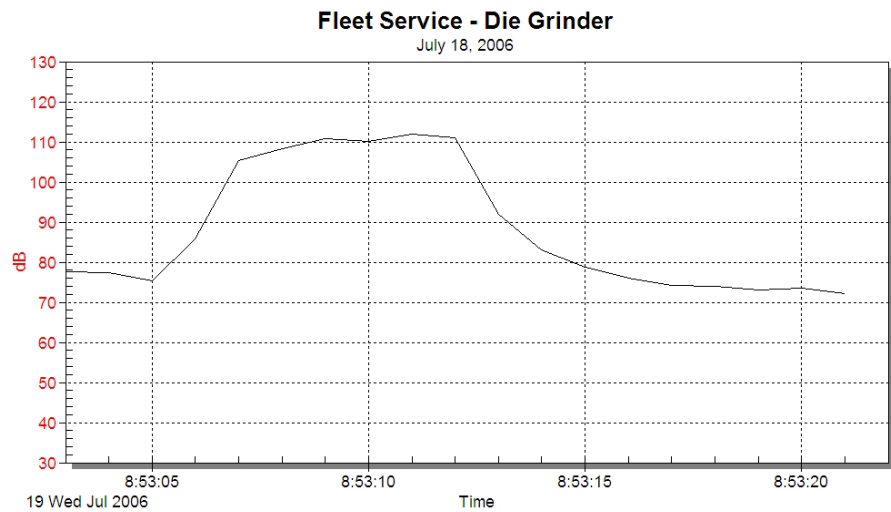
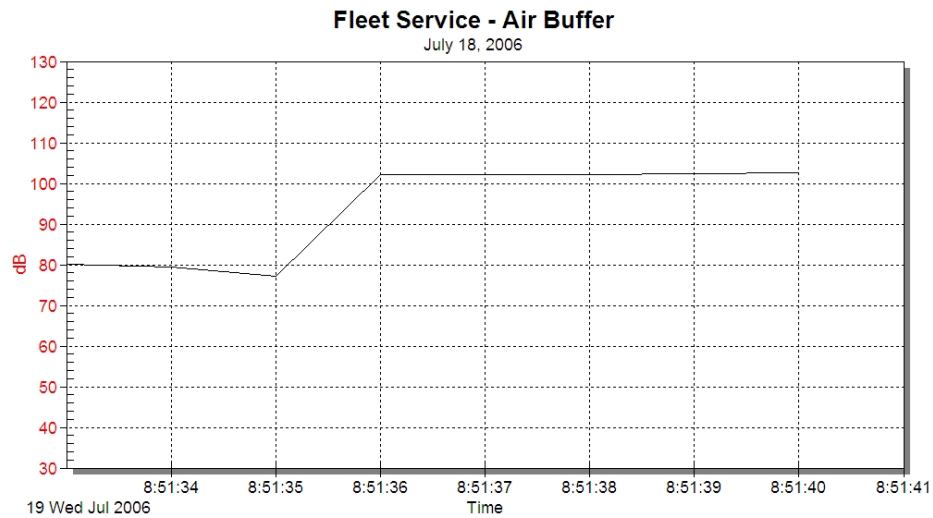
Calculation of the Time Weighted Average (TWA) is extremely difficult to determine based on numerous and varied tasks performed by individual Equipment Management personnel throughout each day.



POST FOR TEN WORKING DAYS



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Findings

The following equipment was monitored with the peak dBA indicated.

Area/Equipment	Peak dBA	Area/Equipment	Peak dBA
Service Bay (Priest)	80.7	½ Impact Wrench	107.1
Tire Machine	84.0	Air Buffer	102.6
1" Impact Wrench	115.4	Die Grinder/Cutter	112.0

POST FOR TEN WORKING DAYS

As addressed previously additional monitoring will not be required to establish the need for employees to be included in the Hearing Conservation Program and the Time Weighted Average (TWA) for each piece of equipment was not established. Equipment identified with decibel readings of 100 are not used for greater than 0.5 hours per day. Based on the employees time of use and equipment decibel readings these operations are under the level identified in §1910.95 (c) and are therefore not required to be included in the City of Tempe Hearing conservation program.

Based on CFR 29 1910.95, Occupational Noise Exposure, Appendix A, Noise Exposure Computation and the established 0.5-Hours of use per day, employees wearing hearing protection as defined in requirements of this report would be sufficient to comply with the established Time Weighted Average and therefore would not be included in the City of Tempe, Hearing Conservation Program. However, it is very important to note that at no time should any combination of use of high noise equipment exceed 0.5-hours (1/2) by one employee for an eight-hour work day.

Table 1 indicates the duration and sound levels to which employees may be exposed to occupational noise without experiencing hearing loss. Employees must not be exposed to impact noise greater than 140 dBA peak.

TABLE 1		
PERMISSIBLE NOISE-EXPOSURE REQUIREMENTS		
DURATION (hrs/day)	DOSE (%)	SOUND LEVELS (dBA)
8 **	33	85
8	100	90
6	100	92
4	100	95
3	100	97
2	100	100
1.5	100	102
1	100	105
0.5	100	110
0.33	100	112
0.25	100	115

POST FOR TEN WORKING DAYS

Determination

Based on initial monitoring performed in 2004 and subsequent re-monitoring identified in this report, this work group will **not** be included in the City of Tempe, Hearing Conservation Program.

Requirements

Signs **must** be placed in those areas where high noise equipment is used to notify employees and/or visitors of the presence of high noise areas and/or equipment.

It is the responsibility of Supervisors to properly notify new employees, outside employees or contractors that enter high noise areas of the hazards and required personal protective devices required. The appropriate level of hearing protective device is:

- Any Hearing Protective Device with a minimum NRR value of 29.

Additionally, employees will not be permitted to operate the impact wrenches, buffer, cutters or grinders for greater than 0.5-Hours of use per day. This shall be a total combined time if equipment identified above is used by an individual employee during the same work day.

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